17th December 1947]

APPENDIX II.

[See Answer to Starred Question No. 198, asked by Sri P. Virabadraswami, at the meeting of the Legislative Council held on the 17th December 1947, page 203 supra.]

Manurial value of paddy husk and groundnut shell.

Experiments were conducted to find out the manurial value of groundnut husk (raw) at the Paddy Breeding Station, Coimbatore, with the following treatments :—

Treatment.	Quantity applied per acre.	Yield as percentage on control.
	LB.	
1 Groundnut husk filled in cracks at 2′ intervals.	8,800	108·1
2 Groundnut husk filled in cracks in 2′ intervals with alternate 3′ unfilled.	6,300	106·9
3 Groundnut husk filled throughout ..	22,000	109·1
4 No filling (control)	..	100·0

The results show that application of groundnut husk does not improve the yield, significantly.

Both raw and burnt groundnut shell have been analysed for their manurial value. Raw shell contains about 1·5 per cent nitrogen and negligible quantities of potash and phosphoric acid, the essential plant nutrients. Shell ash which forms only 3 per cent of raw shell contains about 1 to 1·5 per cent of potash and 3 per cent of lime. It is, therefore, evident that neither raw nor burnt groundnut shell has any appreciable manurial value. Raw shell which consists mostly of crude fibre cannot also be composted easily as it takes nearly a year to break down and decompose. Raw shell is, however, being applied to heavy clayey soils in some localities with beneficial effects for improving the physical texture. Groundnut shell is now being largely used as a fuel.

Attempts made at composting the groundnut husk or paddy husk were not successful as the materials are highly refractory and do not break down easily.

Paddy husk gives the following analysis :—

—	Raw.	Burnt
	PER CENT.	PER CENT.
Moisture	7·71	1·25
Ash	20·91	..
Insolubles	19·27	89·95
Nitrogen	0·35	0·39
Phosphoric acid	0·33	1·68
Potash	..	1·50

No experiments were conducted with paddy husk. As is evident from the above analysis, it would appear that this is not a useful source of manure. Paddy chaff and other rubbish from the threshing floors are applied by cultivators in some parts of deltas for heavy soils with the object of improving the texture or correcting alkalinity.